Testing the Prosocial Effectiveness of the Prototypical Moral Emotions: Elevation Increases Benevolent Behaviors and Outrage Increases Justice Behaviors

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Abstract

How can we overcome apathy and instigate a desire to help others? This research tests and compares the prosocial effects of two of the most prototypical emotions on a range of prosocial intentions and behaviors. Emotion-inducing videos were used to instigate states of moral elevation (felt when witnessing a moral virtue) and/or moral outrage (felt when witnessing a moral transgression). Although elevation and outrage derive from opposing appraisals, separate strands of research show that they both instigate a desire to help others. The current research tests the appraisal tendency framework to explore whether elevation and outrage increase prosociality across moral domains or whether their prosocial effects are domain specific. Results of Experiment 1 showed that elevation, but not outrage, increased donations to charity (i.e., benevolence domain). Experiment 2 showed that outrage, but not elevation, increased prosocial political action intentions (i.e., justice domain). Experiment 3 showed that outrage, but not elevation, increased compensation in a third-party bystander game (i.e., justice domain). This research shows that although elevation and outrage both inspire a desire to help others, they affect distinct types of prosocial behaviors, offering support for the appraisal tendency framework. Applied and theoretical implications are discussed.

Keywords: moral emotions, outrage, elevation, prosocial behavior, appraisal tendency framework

Testing the Prosocial Effectiveness of the Prototypical Moral Emotions: Elevation Increases Benevolent Behaviors and Outrage Increases Justice Behaviors

High levels of poverty and inequality persist, with 22 percent of the developing world's population still living in extreme poverty (The World Bank, 2012). Yet, many people remain as bystanders to these inequalities (Singer, 2009). This global wealth anomaly highlights the need for research to understand how we can mobilize people to take action to help others less fortunate than themselves. The current research contributes to this issue by testing the prosocial effects of two particularly powerful moral emotions – elevation and outrage (Haidt, 2003). Once their effects are better understood they could inform real-world interventions aimed at fostering civic action.

Moral Emotions and Prosociality

Moral emotions are defined as those that respond to moral violations or standards, or those that motivate moral behavior (Haidt, 2003). Morality has been defined in numerous ways, however we employ the definition of Gewirth (1984, p.978 as cited in Haidt, 2003): moral rules or judgments "must bear on the interests or welfare either of society as a whole or at least of persons other than the judge or agent". Prosocial behaviors are those that benefit others or increase the welfare of others (Penner, Dovidio, Piliavin, & Schroeder, 2005).

Increasingly, research demonstrates that moral emotions can mobilize people to help others (cf. Tangney, Stuewig, & Mashek, 2007). Haidt's (2003) model for "prototypical moral emotions" suggests that *disinterested elicitors* and *action tendencies* are crucial for understanding the prosocial effectiveness of moral emotions. Disinterested elicitors refer to the emotions that can be triggered even when there is no personal stake. Prosocial action tendencies refer to the degree to which the action tendency following the triggering event benefits others, or upholds the social order. Emotions high in both disinterested elicitors and prosocial action tendencies are prototypical moral emotions. Using these component features,

Haidt (2003) described moral elevation, outrage, compassion, and guilt as the most prototypical moral emotions. These emotions are theorized to be the most intrinsically linked to the welfare of others, and thus most effective in inducing selfless prosociality.

Elevation

Elevation is felt when witnessing another person perform a virtuous act (Algoe & Haidt, 2009). Elevation consists of a feeling of warmth and expansion that is accompanied by admiration for the person(s) who performed the exemplary behavior, and promotes a desire to emulate this exemplar (Haidt, 2003). Elevation may seem similar to feelings of "awe" or "admiration". However, its appraisals and other components are different from those of awe or admiration (for in depth analyses of this see Algoe & Haidt, 2009; Keltner & Haidt, 2003). Evidence from (the relatively few) studies on elevation suggests that it inspires helping, and warrants further research. For example, participants in elevation conditions (vs. control conditions) are more likely to volunteer for a subsequent study and spend longer helping the experimenter with a tedious task (Schnall, Roper, & Fessler, 2010). Elevation attenuates the negative effect of social dominance orientation on donations (Freeman, Aquino, & McFerran, 2009), elevation is related to long-term volunteering in college students (Cox, 2010), and individual differences in elevation predict caring, empathy, and love toward others, as well as valuing benevolence (Diessner, Iyer, Smith, & Haidt, 2013).

Outrage

Van Doorn, Zeelenberg, and Breugelmans' (2014) recent synthesis of research on the prosocial effects of anger (see also Haidt, 2003; Thomas et al., 2009) highlighted that while the vast majority of research conceptualizes anger as an emotion with antagonistic outcomes, anger can also have prosocial outcomes. Specifically, in third-party contexts there is an alternative response to punishing perpetrators; people can also compensate and help victims.

Indeed, Lotz, Okimoto, Schlosser, and Fetchenhauer (2011) showed that compensation may be a more typical response (vs. punishment) when witnessing third-party transgressions.

Witnessing an injustice to another person can make people feel outraged. This feeling has been referred to as anger (Haidt, 2003), righteous anger (Leach, 2008), and outrage (Montada & Schneider, 1989; Rothschild, Landau, Molina, Branscombe, & Sullivan, 2013; Thomas, McGarthy, & Mavor, 2009). However, outrage should be differentiated conceptually from anger. Specifically, although both may be experienced similarly, *outrage* refers to anger that results from witnessing a person or group transgress a moral standard (usually of fairness or justice) that harms another person or group, but which does not affect the self (cf. Rothschild et al., 2013; Thomas et al., 2009). Fehr and Fischbacher (2004, p. 64) distinguished between the cheated partner (the second party) and the uninvolved observer (the third party). In this example, the former might experience anger, the latter outrage.

Research shows that outrage increases a range of prosocial intentions and behaviors. For example, Montada and Schneider (1989) showed that, following exposure to stories of poverty, outrage rather than guilt or negative affect predicted prosocial intentions including donating money and participating in a demonstration. Thomas and McGarty (2009) found that in opinion-based groups, inducing an outrage norm increased commitment to the "water for life" campaign (e.g., attending a fundraiser). Wakslak, Jost, Tyler, and Chen (2007) found that outrage mediated the relationship between system justification, which has been widely implicated in helping behaviors, and intentions to support community programs (e.g., donating money, volunteering) and support for the redistribution of resources.

Furthermore, van Zomeren, Spears, Fischer, and Leach (2004) found that outrage towards an authority for their unfair treatment of an outgroup predicted willingness to participate in collective action. Similarly, Iyer, Schmader, and Lickel (2007) found that British people's outrage at the American government for the occupation of Iraq predicted

people's willingness to take concrete political actions (e.g., confronting those responsible for Iraq by signing a petition). Thus, research suggests that outrage increases a range of prosocial behaviors including, support to and solidarity with victims, and confrontation of perpetrators.

The Appraisal Tendency Framework

In order to maximize the prosocial effectiveness of elevation and outrage, it is essential not just to know whether they influence prosocial behaviors but also which types of behaviors they influence and why. Indeed, research on the appraisal tendency framework (ATF) suggests that distinct emotions promote specific kinds of judgments and decisions as a function of their unique and distinctive cognitive appraisals (cf. Horberg, Oveis, & Keltner, 2011; Lerner & Keltner, 2000).

The ATF draws on cognitive appraisal and functional (evolutionary) theories of emotion to understand how emotional experiences influence judgments and decisions (Lerner & Keltner, 2000). From cognitive appraisal theories of emotion, the ATF draws on the notion that a range of cognitive dimensions (rather than just valence) differentiates emotions from one another. From functional theories of emotion, the ATF draws on the notion that emotions trigger and coordinate effective responses (physiological, behavioral, experiential, and communicative), which enable a person to deal with situations, problems, or opportunities (Frijda, 1986; Oatley & Johnson-Laird, 1996). The ATF extends these theories and suggests that each emotion activates a cognitive predisposition to appraise situations in line with the central-appraisal dimensions that triggered the emotion – termed appraisal tendency. In other words, "appraisal tendencies are goal-directed processes through which emotions exert effects on judgments and choice until the emotion-eliciting problem is resolved" (Lerner & Keltner, 2000, p. 477).

Lerner and Keltner (2000) first developed the ATF as a response to the unique and heavy focus on emotion's valence; the majority of studies in the literature have compared the

effects of positive versus negative moods on judgments and decisions (e.g., Bower, 1991; Isen, Shalker, Clark, & Karp, 1978; Johnson & Tversky, 1983). In general these studies find that positive moods induce positive judgments and negative moods induce negative judgments. Researchers even suggested that "the only relevant aspect of emotion is their valence" (Elster, 1998, p.64, from Han, Lerner, & Keltner, 2007). However, according to ATF, emotions of the same valence (such as fear and anger) can exert opposing effects on judgments and decisions, while emotions of the opposite valence (such as anger and happiness) can exert similar effects (Lerner & Keltner, 2000; Lerner, Li, Valdesolo, & Kassam, 2015).

Studies over the past decade have provided some initial support for the ATF. For example, Lerner, Small, and Loewenstein (2004) compared the effects of disgust and sadness on routine economic transactions. While both emotions are negative, their cognitive appraisals are distinctive. Sadness revolves around an appraisal theme of loss, while disgust revolves around an appraisal theme of being too close to an indigestible object or idea (Lazarus, 1991). Thus, when feeling sad people are motivated to change their circumstance, and when feeling disgust people are motivated to expel objects and avoid taking in anything new. In their study they hypothesized and found that, disgust would reduce choice prices as buying represents a potential source of contamination, whereas sadness would increase choice prices as buying offers a route to change one's current circumstances. Furthermore they hypothesized and found that both disgust and sadness would reduce selling prices as, for disgusted people reducing selling prices would offer an opportunity to get rid of current objects, and for sad people it would offer an opportunity to change one's circumstance.

In another line of research, Iyer and colleagues (2007) showed that anger, guilt, and shame (all negative emotions) predicted distinct political action intentions in response to the American and British involvement in Iraq. Shame predicted intentions to support withdrawal

from Iraq, anger predicted intentions to support confrontation of those responsible, to support compensation to Iraq, and to support withdrawal from Iraq. Guilt did not predict any political action intentions. However, in a similar line of research, Pagano and Huo (2007) found that guilt predicted reparative actions.

Although the Iyer et al and Pagano and Huo studies did not measure appraisals, the ATF would account for these distinct emotion-intention links as follows. The appraisal theme surrounding anger is that a person (or group) has transgressed some sort of societal standard (Frijda, 1986). Thus, anger should motivate action to undo the transgression or its effects. The appraisal theme surrounding guilt is that a person (or their ingroup) is responsible for specific negative actions (Lickel, Schmader, Curtis, Scarnier, & Ames, 2005). Thus, guilt should motivate action to undo the harm caused. The appraisal theme surrounding shame is similar to guilt however, while guilt focuses on the behavior ("I have done a bad thing"), shame focuses on the person's character ("I am a bad person") (Niedenthal, Tangney, & Gavanski, 1994). Thus, shame should motivate avoidant behaviors to hide ones character.

The appraisal tendency framework and moral judgments. The ATF has recently been extended to examine and understand the influence of distinct emotions on *moral* judgments. Horberg and colleagues' (2011) review highlights that certain emotions are instigated by appraisals linked to specific moral themes (e.g., Haidt & Graham, 2007; Rozin, Lowery, Imada, & Haidt, 1999). For example, disgust, anger, and contempt derive from the distinct moral appraisal themes of purity, justice, and community roles respectively (Rozin et al., 1999). Horberg and colleagues (2011) suggest that each emotion's moral appraisal theme remains salient throughout the entire emotional state and colors subsequent moral judgments and behaviors by prioritizing specific sociomoral concerns (or moral domains) that are semantically related to the emotion's moral appraisal theme. For example, disgust should influence moral judgments when purity concerns are salient, anger should influence moral

judgments when justice concerns are salient, and elevation should influence moral judgments when virtue or benevolence concerns are salient.

Importantly, Horberg and colleagues (2011) propose domain specificity. Domain specificity occurs when an emotion predominantly influences moral judgments about issues that express the associated sociomoral concern (vs. all sociomoral concerns). For example, disgust should primarily influence judgments relevant to purity concerns, while anger should primarily influence judgments relevant to justice concerns. There is some evidence for this notion. For example, people who are disgust-prone (vs. people who are not) show greater prejudice against homosexuals, but not towards African Americans (Tapias, Glaser, Keltner, Vasquez, & Wickens, 2007) and are especially likely to have conservative beliefs surrounding gay marriage and abortion, versus issues such as affirmative action (Inbar, Pizarro, & Bloom, 2009). Thus, research on disgust shows that its moral appraisal theme (purity) appears to guide its effects on moral judgments.

Research has not yet examined whether the ATF can explain the effects of outrage and elevation. It is plausible that domain specificity only or predominantly appears for disgust. Furthermore, the majority of research has focused on moral judgments and attitudes but it is unclear whether the ATF can also explain behavioral effects. The current research will examine whether the ATF holds for two relatively less-researched moral emotions of opposite valences and which can engender similar prosocial behavioral outcomes (i.e., moral elevation and moral outrage).

Some prior research is consistent with the idea that outrage and elevation may have domain specific effects. Desteno, Petty, Rucker, Wegener, and Braverman (2004) showed that participants induced to feel interpersonal anger were more supportive of a tax increase when the appeal/message was framed in angering (mostly unfairness-relevant) terms. Participants induced to feel sadness were more supportive of a tax increase when the

appeal/message was framed in saddening terms (mostly drawing on suffering, weakness, and need). Furthermore, Dasgupta, DeSteno, Williams, and Hunsinger (2009) showed that induced disgust increased bias against homosexuals but not Arabs, whereas the reverse was found for induced interpersonal anger. These studies did not measure moral appraisal themes but they do indicate that interpersonal anger (and perhaps by implication, outrage) may increase justice-relevant judgments.

Another series of studies (Siegel, Thomson, & Navarro, 2014) examined whether elevation and gratitude have distinct effects on prosociality. Participants induced to feel elevation gave more to moral charities than did those induced to feel gratitude. Those induced to feel gratitude gave more to amoral charities than those induced to feel elevation. The researchers suggested that these differences occurred because elevation should encourage emulation of the exemplar whereas gratitude should encourage reciprocity. These differential outcomes suggest that the effects of elevation on behaviors are not merely due to positive valence, but rather involve specific underlying appraisals. The DeSteno et al. (2004), Dasgupta et al. (2009), and Siegel et al. (2014) studies did not examine moral appraisal themes, or how moral appraisal themes relate to emotional states and subsequent judgments and behaviors. However, they are consistent with the idea that elevation and outrage should have domain specific effects on behavior.

The Current Research

Overview

Lerner and Keltner (2000, p. 478) suggest that research on the ATF "should compare emotions that are highly differentiated in their appraisal themes on judgments/choices that relate to that appraisal theme". Elevation and outrage differ substantially in terms of their core appraisal. From their definitions, we infer that outrage and elevation should be underpinned by *opposing* appraisals (i.e., perceived violation vs. upholding of a moral

standard). Moreover, while elevation and outrage derive from opposing appraisals, the empirical evidence to date documents convergent effects of both emotions on similar prosocial outcomes (e.g., charitable donations, volunteering). Thus, comparing elevation and outrage allows a direct test of whether the two emotions influence prosocial behaviors across the sociomoral domains of justice and benevolence, or whether their effects are domain specific (cf. Horberg et al., 2011).

To identify, for the first time, how elevation and outrage may act in concert to affect the same or distinct prosocial behaviors, the current research reports three experiments testing the joint and independent effects of these two emotions on different types of prosocial behaviors. Comparing their effects in an experimental design will enable us to understand whether they increase helping behaviors generally (across moral domains), or whether their effects are more nuanced and depend on the salience of the relevant sociomoral concern (domain specific). Specifically, experiment 1 examines benevolence-relevant behavior in the form of charitable donations. Experiment 2 examines justice-relevant intentions in the form of prosocial political action intentions following an inequality. Experiment 3 examines justice-relevant behavior in the form of third-party bystander compensation and punishment following unfairness.

Hypotheses

Based on the domain-specific predictions from ATF, we hypothesize that elevation and outrage have domain specific effects on prosocial behaviors. Elevation should increase prosocial behavior most when the behavioral measure is relevant to benevolence concerns. Outrage should increase prosocial behavior most when the behavioral measure is relevant to justice concerns.

In Experiment 1 elevation, but not outrage, should increase prosociality (donations) and this effect should be mediated by elevation appraisals and feelings of elevation. In

Experiment 2, outrage, but not elevation, should increase prosociality (prosocial political action intentions) and this effect should be mediated by outrage appraisals and feelings of outrage. In Experiment 3, outrage, but not elevation, should increase prosociality (third-party bystander compensation and punishment) and this effect should be mediated by outrage appraisals and feelings of outrage.

Alternatively, a domain general hypothesis would hold that elevation and outrage should positively affect prosocial behaviors across all sociomoral domains. Thus, the induction of either emotion should be sufficient to increase donations (Experiment 1), prosocial political action intentions (Experiment 2), and third-party bystander behavior (Experiment 3).

Dual exposure

It is very common in everyday life to feel multiple emotions, whether at once or close together in time. Thus, extending the typical paradigms that have instigated a single emotional state to one in which we instigate two emotional states is an essential step for advancing our understanding of the processes, components, and outcomes of different emotional states.

In the current research we induce elevation, outrage, both elevation and outrage (dual exposure), or neither, and give participants an opportunity to act prosocially in one domain (in different studies, justice or benevolence). Dual exposure enables us to investigate the flexibility or rigidity of the appraisal–behavior link. We are able to test the ATF further and explore what happens to behavior when two emotions with opposing appraisals are experienced concurrently. According to ATF, appraisals following dual exposure should make both justice and benevolence concerns salient. One possibility is that either concern is sufficient to increase prosocial behavior because people may respond flexibly, taking any domain-relevant behavioral opportunity that presents itself. Thus, following dual exposure,

prosocial behavior would be high regardless of whether the opportunity is relevant to justice or benevolence concerns. Alternatively, the two appraisals might interfere with one another, attenuating the impact of either on subsequent prosocial behavior.

Experiment 1

Method

Participants and design. The initial sample consisted of 117 participants (70.94% female) with a mean age of 23.78 (*SD* = 8.01). Participants were randomly assigned to condition in a 2 (Elevation: viewed vs. not viewed) X 2 (Outrage: viewed vs. not viewed) between-participants design. Data were collected using an on-line questionnaire (via a platform called Qualtrics). Participants were recruited via (1) a formal university-led strategy, 50.5% (e.g., the department's research credits scheme); or (2) an informal social network strategy, 49.5% (e.g., Facebook). Recruitment strategy had no effect on the dependent variable ($p > .500$).

Procedure. Participants viewed either one or two videos (elevation, outrage, both elevation and outrage, or control). When participants viewed both the elevation and outrage inducing videos (i.e., dual exposure condition), the videos were viewed straight after one another, and the order was randomized. Participants then responded to the emotion, appraisal, and prosocial measures.

Data analyses were restricted to British participants in Experiments 1 and 3, and to American participants in Experiment 2 for two reasons. First, elevation and outrage are both other-oriented emotions which are elicited by events not directly related to the self (Englander, Haidt, & Morris, 2012; Haidt, 2003; Lotz et al., 2011). Ample research shows that a person's group membership strongly influences their attitudes, feelings, and behaviors (Abrams & Hogg, 2010). As nationality of targets was relatively salient in the videos, we ensured that all targets were out-group members (Northern Ireland [all experiments], the

DRC and the U.S. [Experiments 1 and 3], and Zambia and the UK [Experiment 2]). Second, well-established research shows important cross-cultural differences in domains such as fairness and cooperation (cf. Henrich, Heine, & Norenzayan, 2010). Unfortunately, examining the cross-cultural differences in the effects of elevation and outrage on prosociality is beyond the scope of this research. To avoid any confounding effects of culture we restricted data analyses to British participants in Experiments 1 and 3, and to American participants in Experiment 2.This left a sample of 92 participants (70.70% female).

Experimental manipulations.

Elevation video. The Elevation-inducing video (2.14-minutes) video describes the story of a man (Richard Moore) who was shot between the eyes with a rubber bullet, which permanently blinded him at the age of 10. It shows how he was able to forgive the perpetrator, take a positive attitude to life, and spend his life helping others. Pilot testing showed that the video induced high elevation (M = 6.30, SD = 1.20) and low outrage (M = 2.35, SD = 1.73; 9-point scale).

Outrage video. An extract from a BBC report was employed (2.42-minutes) in which a journalist reports how a (wealthy) financial speculator from the U.S. bought a three million dollar debt that Congo owed to former Yugoslavia for power lines. The financial speculators increased the debt to 100 million dollars, now demanding back that amount. The journalist also interviewed relevant Congo locals and international volunteers to show the extent of the cholera epidemic and the need for this money in Congo. Pilot testing showed that the video induced high outrage (M = 6.85, SD = 2.28) and low elevation (M = 3.40, SD = 1.60; 9-point scale)

Control video. Similarly to Schnall et al. (2010) we also employed a nature video for our control stimulus (2.42-minutes) – a National Geographic Channel extract on *Wildebeest*

Migration. Pilot testing showed that the video induced low levels of elevation (M = 4.33, SD = 1.73) and outrage (M = 1.45, SD = .76; 9-point scale).

Measures.

Elevation. Participants were asked to rate the extent to which they felt: inspired, awe, and admiration on a 9-point scale from 1 = *not at all* to 9 = *very much* (Aquino, McFerran, & Laven, 2011; Freeman et al., 2009). The item "uplifted" was added as principal components analyses showed that it loaded well on the elevation factor (loading of .88). Cronbach's alpha was .89.

Outrage. Participants were asked to rate the extent to which they felt: angry, infuriated, outraged, and contempt on a 9-point scale from 1 = *not at all* to 9 = *very much* (Russell & Giner-Sorolla, 2011). Cronbach's alpha was .88.

Appraisals. Elevation arises from an appraisal of a moral virtue whereas outrage arises from an appraisal of a moral transgression (cf. Haidt, 2003). These appraisals will be referred to as *elevation appraisals* (i.e., upholding a moral standard) and *outrage appraisals* (i.e., transgressing a moral standard). A four-item scale was devised for this research (e.g., "To what extent is there behavior in the video clip which is well above/well below the normal standards of behavior?") Cronbach alphas were .83 and .79 for the elevation and the outrage appraisal dimensions, respectively. Participants responded from 1 = *not at all* to 5 = *very much.*

Donations. Benevolence-relevant prosocial behavior was measured according to the amount of prize draw money participants donated to charity (cf. Aquino et al., 2011; Freeman et al., 2009; McFarland, Webb, & Brown, 2012). All participants were entered in to a £60 ($96) prize draw. Participants could donate none, some, or the entire amount to their chosen charity.

Results and Discussion

Table 1 shows intercorrelations among variables, as well as their means and standard deviations. Data were analyzed using 2 (Elevation: viewed vs. not viewed) X 2 (Outrage: viewed vs. not viewed) ANOVAs.

Appraisals and emotions. There was a significant main effect of Elevation. Participants who viewed the elevation-inducing video scored higher on elevation appraisals, F (1, 88) = 39.54, $p < .001$, $\eta^2 = .31$ ($M = 3.54$, $SE = 0.12$) and on elevation, F (1, 88) = 28.58, $p < .001$, $\eta^2 = .25$ ($M = 5.00$, $SE = 0.28$) than participants who had not viewed this video ($M_{\text{pappraisals}} = 2.32$, $SE = 0.15$; $M_{\text{elevation}} = 2.68$, $SE = 0.33$).

There was a significant main effect of Outrage. Participants who viewed the outrage-inducing video scored higher on outrage appraisals, F (1, 88) = 32.04, $p < .001$, $\eta^2 = .27$ ($M = 3.53$, $SE = 0.15$) and on outrage, F (1, 88) = 31.26, $p < .001$, $\eta^2 = .26$ ($M = 4.00$, $SE = 0.26$) than participants who had not viewed this video ($M_{\text{appraisals}} = 2.24$, $SE = 0.17$; $M_{\text{outrage}} = 1.85$, $SE = 0.29$).

There were significant Elevation X Outrage interactions on elevation appraisals, F (1, 88) = 26.97, $p < .001$, $\eta^2 = .24$ and marginally on outrage appraisals, F (1, 88) = 3.56, $p = .063$, $\eta^2 = .04$. Specifically, elevation appraisals reduced in the dual condition ($M = 3.06$, $SE = 0.16$) relative to the elevation-only condition ($M = 4.02$, $SE = 0.19$, $p < .0001$). In contrast, outrage appraisals did not differ between the dual exposure condition ($M = 3.52$, $SE = 0.19$) and the outrage-only condition ($M = 3.55$, $SE = 0.24$, $p = .910$).

Donations. There was only a main effect of Elevation, F (1, 88) = 4.64, $p = .034$, $\eta^2 = .05$. Participants who had viewed the elevation-inducing video donated more ($M =$ £33.99, $SE = 3.19$) than those who had not viewed this video ($M =$ £23.22, $SE = 3.85$). The main effect of Outrage, F (1, 88) = .99, $p = .322$, $\eta^2 = .01$ and the Elevation X Outrage interaction, F (1, 88) = 2.82, $p = .097$, $\eta^2 = .03$ were non-significant.

Mediation analyses. Sequential mediation analyses (using Hayes' 2013 Process macro model 6) showed that positive appraisals and then elevation significantly and sequentially mediated the effect of the elevation-inducing video on donations, *B* = 2.40, *SE* = 1.41, 95CI 0.19/5.98 [1] (due to the 2 X 2 design and as we were only interested in the mediating role of the elevation main effect, the outrage-inducing video was entered as a covariate). The significant total effect of the elevation-inducing video on donations (*B* = 9.81, *SE* = 5.02, *t* = 1.96, *p* = .054) was reduced to non-significance in the indirect model (*B* = -0.55, *SE* = 5.69, *t* = -0.10, *p* = .924) (Fig. 1).

To summarize, Experiment 1 offers support for the ATF. Elevation, but not outrage, increased donations and this effect was sequentially mediated by elevation appraisals and feelings of elevation.

Experiment 2

Method

Participants and design. One hundred and eighty-two (52.20% female) participants with a mean age of 35.41 years (*SD* = 12.78) completed an on-line questionnaire. Participants were sampled from Amazon's Mechanical Turk; a site for web-based data collection and functions through a participant compensation system. Participants were randomly assigned to condition in a 2 (Elevation: viewed vs. not viewed) X 2 (Outrage: viewed vs. not viewed) between-participants design. To avoid confounding effects of nationality, analyses were restricted to American participants, leaving a sample of 164 participants (51.8% female). We also improved upon Experiment 1 by checking that the video was novel for participants. We excluded data from two who reported they had seen the video previously, leaving a sample of 162.

Procedure. Participants viewed either one or two videos (elevation, outrage, both elevation and outrage, or control). When participants viewed both the elevation and outrage-

inducing videos, the videos were viewed consecutively, and the order was counter-balanced. Order did not affect feelings of outrage, F (1, 36) = 0.65, p = .426, η^2 = .02, or feelings of elevation, F (1, 36) = 0.42, p = .522, η^2 = .01. Participants then responded to the appraisal, emotion, and prosocial measures. Participants received compensation upon completion.

Experimental manipulations. The elevation and control videos from Experiment 1 were employed. Because participants were from the US, a new outrage-inducing video was necessary to ensure that outrage rather than guilt (due to nationality) would be instigated. The new outrage-inducing video was a 2.58-minute video, which demonstrated how a British multinational company dodged taxes in Zambia, and how this affected the people in Zambia (a small-business owner in Zambia pays more a year in tax than the multinational company). Pilot testing showed that this video induced high outrage (7-point scale; M = 5.01, SD = 1.41) and low elevation (M = 2.90, SD = 1.05).

Measures. Appraisals and then emotions were measured using the same items as Experiment 1. Participants responded to the appraisals on a 5-point scale and to the emotions on a 7-point scale.

Prosocial political action intentions. This measure was adapted from Iyer et al. (2007). It is considered a justice-relevant measure as it assesses responses to inequality. Participants were told, "Recent data from Oxfam shows that 72 million children worldwide are out of school and that 771 million adults worldwide are illiterate**.** Some Americans are taking action to express their opinions about what should be done to improve access to education worldwide". Participants were told about three groups who support distinct strategies: (1) support ("one group has been formed to call for the U.S. to provide more support and help to improve access to education (e.g., by funding the development of school buildings, books, teacher's wages, and children's uniforms)", (2) challenge ("other Americans have formed a group to identify those responsible for the lack of access to

education worldwide and to directly challenge them to fix the problems they have created"), and (3) avoidance ("other Americans have formed a group to advocate for the U.S. to not get involved in this issue of access to education worldwide"). Participants were asked how willing they would be to get involved with each group in a different ways (e.g., "join the group's e-mail list", "volunteer with this group") (see Iyer et al., 2007 for full list of items). Cronbach's alphas were .92 for support and challenge items, and .97 for avoidance items. Participants responded from 1 ("*not at all willing*") to 5 ("*very willing*").

Behavioral engagement with prosocial group. In order to measure behavioral engagement participants were asked: "If you would like more information about one or more of the groups please indicate the group you would like information about". Participants could then tick one or more of the three groups.

Results and Discussion

Table 2 shows the correlations among variables, as well as their means and standard deviations. Data were analyzed using 2 (Elevation: viewed vs. not viewed) X 2 (Outrage: viewed vs. not viewed) ANOVAs.

Emotions and appraisals. There was a significant main effect of Elevation. Participants who had viewed the elevation-inducing video scored significantly higher on elevation appraisals, F (1, 158) = 115.35, $p < .001$, $\eta^2 = .42$ ($M = 4.27$, $SE = 0.10$) and on elevation, F (1, 158) = 61.30, $p < .001$, $\eta^2 = .28$ ($M = 5.23$, $SE = 0.17$), than those who had not viewed the elevation-inducing video ($M_{appraisals} = 2.79$, $SE = 0.10$; $M_{elevation} = 3.38$, $SE = 0.16$).

There was also a significant main effect of Outrage. Participants who had viewed the outrage-inducing video scored significantly higher on outrage appraisals, F (1, 158) = 126.03, $p < .001$, $\eta^2 = .44$ ($M = 3.93$, $SE = 0.11$), and on outrage, F (1, 158) = 167.06, $p < .001$, η^2

= .51 (M = 5.08, SE = 0.16) than those who had not viewed the outrage-inducing video ($M_{appraisals}$ = 2.13, SE = 0.12; $M_{outrage}$ = 2.01, SE = 0.17).

Prosocial political action intentions. There was main effect of Outrage on support, F (1, 158) = 4.25, p = .041, η^2 = .03 and challenge intentions, F (1, 158) = 7.46, p = .007, η^2 = .05. Participants who had viewed the outrage-inducing video were significantly more likely to support a group that advocated victim-focused support (M = 3.44, SE = 0.12), and significantly more likely to support a group that advocated perpetrator-focused challenge (M = 3.40, SE = 0.11), than participants who had not viewed the outrage-inducing video (M_{support} = 3.09, SE = 0.12; $M_{\text{challenge}}$ = 2.97, SE = 0.12). There was no effect of Elevation on support, F (1, 158) = 0.27, p = .869, η^2 < .001 or challenge intentions, F (1, 158) = 0.21, p = .651, η^2 = .001. There were also no significant interaction effects on support, F (1, 158) = 0.15, p = .703, η^2 = .001 or challenge intentions, F (1, 158) = 1.90, p = .170, η^2 = .01. Finally, there were no significant effects on avoidance intentions (all p's > .250).

Behavioral engagement. Hierarchical loglinear analyses showed a marginally significant interaction between the outrage-inducing video and behavioral engagement with the challenge group, χ^2 (1) = 3.15, p = .076, whereby of the 62 participants who had requested further information, 38 had viewed the outrage-inducing video (61.29%). There were no other two or three-way interactions between the emotion-inducing videos and behavioral engagement (p's > .205).

Mediation analyses. Sequential mediation analyses (Hayes' 2013 Process macro model 6 was employed) showed that negative appraisals and then outrage significantly mediated the effect of the outrage-inducing video on support intentions, B = 0.37, SE = 0.10, 95CI 0.22/0.61, on challenge intentions, B = 0.34, SE = 0.09, 95CI 0.20/0.56, and on behavioral engagement with the challenge group, B = 0.61, SE = 0.21, 95CI 0.30/1.14 (due to the 2 X 2 design and as we were only interested in the mediating role of the outrage main

effect, the elevation-inducing video was entered as a covariate for all three mediation analyses; Fig. 2).

The significant total effect of the outrage-inducing video on support intentions (B = 0.35, SE = 0.17, t = 2.09, p = .039) was reduced to non-significance in the indirect model (B = -0.25, SE = 0.23, t = -1.09, p = .277). Similarly, the significant total effect of the outrage-inducing video on challenge intentions (B = 0.44, SE = 0.16, t = 2.79, p = .006) was reduced to non-significance in the indirect model (B = -0.11, SE = 0.22, t = -.53, p = .598). The marginal effect of the outrage-inducing video on behavioral engagement with the challenge group (B = 0.58, SE = 0.33, Z = 1.76, p = .079) was reduced to non-significance in the indirect model (B = -0.42, SE = 0.56, Z = -0.75, p = .455).

To summarize, Experiment 2 offers support for the ATF. Outrage, but not elevation, increased justice-relevant prosocial intentions, and this effect was sequentially mediated by outrage appraisals and feelings of outrage.

Experiment 3

Experiment 3 examines whether the effects of elevation and outrage extend to affect justice-relevant prosocial *behaviors*. Specifically, Experiment 3 explores participant's compensation and punishment following unfair distributions in a third-party bystander game.

Method

Participants and design. The sample initially consisted of 109 participants (13 men, 96 women) with a mean age of 20.04 (SD = 5.10). To avoid confounding effects of nationality, analyses were restricted to British participants only, leaving a sample of 78 participants (7 male, 71 female). Participants were randomly assigned to condition in a 2 (elevation video: presented/not presented) X 2 (outrage video: presented/not presented) between-participants design. Data were collected in the laboratory. Participants were undergraduate students who took part for course credit.

Procedure. Participants were invited to sign-up to a three-person laboratory study. Participants first watched either one or two videos (elevation, outrage, both elevation and outrage, or control). When participants watched both the elevation and outrage-inducing videos (i.e., dual exposure condition), the two videos were watched straight after one another, and the order was counter-balanced (order did not affect feelings of elevation, F (1, 18) = 0.07, p = .800, η^2 = .004, nor feelings of outrage, F (1, 18) = 0.45, p = .509, η^2 = .03). Participants then responded to the appraisal and emotion measures. Then they took part in the third-party experimental game.

Third-party experimental game. We employed a modified experimental game to measure third-party bystander compensation and punishment in response to unfairness (Fetchenhauer & Huang, 2004; Lotz et al., 2011). Participants were told that there were three players (A, B, and C), however in fact they were all player C. Participants were told that Player A has 100 points, Player B has zero points, and Player C has 50 points. Player A can choose to allocate any number of points (0-50) to Player B. Player C then has the option to compensate Player B (any amount from 0-16 points) or punish Player C (any amount from 0-16). Participant's decisions were made more efficient: every reduction point assigned to Player A reduced Player C's number of points by 1, but reduced Player A's number of points by 3. Every compensation point assigned to Player B reduced Player C's total number of points by 1, but increased Player B's total number of points by 3 (e.g., Fehr & Fischbacher, 2004; Lotz et al., 2011).

To avoid confounding effects of anger about the unequal distribution we asked participants to make their choices while Player A made theirs. Thus, participants (Player C) indicated their compensation and reduction points for each possible distribution that Player A could make. Participants were told that their decisions would be binding. Furthermore, each point in the game was equivalent to £0.10. Participants were told that 10% of participants

would be selected by a lottery and would receive their amount of money based on the decisions made in their interaction. This prize draw approach was employed due to budgetary reasons. However, Fehr and Schmidt's (1999) meta-analysis shows that participant's behavior in experimental games does not change dependent on whether the money distribution is individual or by prize draw allocation.

Experimental manipulations. The same videos as Experiment 1 were employed. Two participants were excluded as they had viewed the video before.

Measures. Prior to the behavioral measure, appraisals and then emotions were measured using the same measures as Experiment 1 and 2. Participants responded from 1 ("*didn't feel it at all*") to 7 ("*felt it very strongly*").

Results and Discussion

Table 3 shows the correlations among variables, as well as their means and standard deviations. Data were analyzed using 2 (Elevation: viewed vs. not viewed) X 2 (Outrage: viewed vs. not viewed) ANOVAs.

Emotions and appraisals. There was a significant main effect of Elevation. Participants who had watched the elevation-inducing video scored higher on elevation appraisals, F (1, 74) = 135.03, $p < .001$, $\eta^2 = .65$ ($M = 4.54$, $SE = 0.11$) and on feelings of elevation, F (1, 74) = 61.81, $p < .001$, $\eta^2 = .46$ ($M = 5.65$, $SE = 0.16$), than those who had not watched the elevation-inducing video ($M_{appraisals} = 2.63$, $SE = 0.12$; $M_{elevation} = 3.87$, $SE = 0.16$).

There was a significant main effect of Outrage. Participants who had watched the outrage-inducing video scored higher on outrage appraisals, F (1, 74) = 50.33, $p < .001$, $\eta^2 = .41$ ($M = 3.85$, $SE = 0.17$), and feelings of outrage, F (1, 74) = 85.58, $p < .001$, $\eta^2 = .54$ ($M = 4.90$, $SE = 0.19$) than those who had not watched the outrage-inducing video ($M_{appraisals} = 2.13$, $SE = 0.17$; $M_{outrage} = 2.42$, $SE = 0.19$).

Additionally, there was a significant main effect of Outrage on feelings of elevation, F (1, 74) = 10.05, p = .002, η^2 = .12, whereby feelings of elevation were significantly lower when participants had watched the outrage-inducing video. Furthermore, there was a significant Elevation X Outrage interaction effect on feelings of elevation, F (1, 74) = 7.08, p = .010, η^2 = .09. Pairwise comparisons showed that feelings of elevation were significantly higher in the dual exposure (M = 5.59, SE = 0.22) and elevation-only conditions (M = 5.70, SE = 0.22) than in the control condition (M = 4.53, SE = 0.24; p < .001). Moreover, feelings of elevation were significantly higher in the control condition than in the outrage condition (M = 3.21, SE = 0.23; p < .001).

Compensation and punishment. Mean scores were calculated for compensation and for punishment. Mean scores included participant's responses following the five unequal distributions (i.e., assigned zero, 10, 20, 30, and 40 points to Player B).

There was a significant Elevation X Outrage interaction on compensation, F (1, 74) = 5.65, p = .020, η^2 = .07. There were no other significant effects (p's > .105). Pairwise comparisons showed that participants in the outrage-only condition compensated significantly more (M = 5.70, SE = 0.67) than those in the control condition (M = 3.02, SE = 0.69, p = .007) and than those in the dual exposure condition (M = 3.62, SE = 0.66, p = .031). The elevation-only condition did not increase (or decrease) compensation relative to any other condition (M = 4.11, SE = 0.64, p's > .250).

Despite consistent main effects of the manipulations resulting in high correlations between emotions and their respective appraisals, the different patterns of interaction effects on elevation and on behavior meant that appraisals and emotions did not correlate with the behavioral outcome. This meant that we could not test for mediation.

To summarize, effects of the elevation and outrage-inducing videos in Experiment 3 offer further partial support for the ATF. The outrage-inducing video, but not the elevation-

inducing video, increased outrage appraisals, feelings of outrage, and justice-relevant behavior.

General Discussion

Three experiments provided support for the domain-specificity predictions of the appraisal tendency framework (ATF; Horberg et al., 2011; Lerner & Keltner, 2000). Specifically, all three showed that although elevation and outrage both instigated prosocial responses, the two emotions derived from distinctive appraisals and had distinctive effects on intentions and behavior.

Prior research indicates that the ATF can help to account for the influence of emotions (particularly disgust) on moral judgments (e.g., Tapias et al., 2007). The present research extends this substantially by selectively comparing the behavioral effects of two emotions (elevation and outrage) that are highly distinctive in terms of their appraisals but similar in terms of their action tendencies. Direct comparison of the effects of moral elevation and moral outrage enabled us to test whether they influence behaviors across moral domains (e.g., justice, benevolence), or whether their effects are specific to a single moral domain.

Domain specificity suggests that elevation should predominantly increase benevolence-relevant behaviors (Experiment 1) and that outrage should predominantly increase justice-relevant intentions and behaviors (Experiments 2 and 3). Consistent with the ATF, Experiment 1 showed that in the benevolence domain, only elevation increased donations. Furthermore, this effect was sequentially mediated by elevation appraisals (i.e., upholding a moral standard) and then by feelings of elevation. Experiment 2 provided further support for the ATF by showing, in a justice-relevant domain, that only outrage increased prosocial political action intentions. These effects were sequentially mediated by outrage appraisals (transgressing a moral standard) and then feelings of outrage. Experiment 3 showed, again in a justice-relevant domain, that only outrage affected prosocial behavior in a

third-party bystander game. In line with previous findings that outrage leads to a preference for compensation over punishment, outrage affected compensation but not punishment in Experiment 3 (cf. Lotz et al., 2011). Thus, across three experiments we showed that the effects of inducing elevation and outrage on prosociality are domain specific, and correspond to their appraisal themes.

The results from dual exposure provided further insight into ways that these contrasting appraisals may combine. In Experiments 1 and 2, dual exposure did not inhibit the prosocial effects of the alternative emotion. This suggests flexibility in the appraisal-behavior link, whereby both sociomoral concerns (benevolence and justice) can remain salient during the emotional states and can respond to whichever prosocial opportunity presents itself. However, in Experiment 3, dual exposure appeared to inhibit the effect of outrage on compensation. Specifically, compensation was reduced following dual exposure relative to outrage-only exposure. This may be because the experimental procedure involved a delay between the emotion induction phase and the behavioral measurement phase (participants were required to "wait" for each other as all "players" had to start the game at the same time). This finding raises the interesting possibility that the sociomoral concerns of a non-domain relevant emotion may interfere with a domain-relevant emotion after a period of time. We have shown this can arise when the domain is justice-related, and future research will be needed to explore whether similar effects occur when the domain is benevolence related.

Theoretical and Applied Implications

Past research testing the ATF has focused on understanding the effects of discrete emotions on distinctive action tendencies (e.g., to harm others or to help others; Iyer et al., 2007; Lerner et al., 2004; Pagano & Huo, 2007). However, a dearth of research has tested the influence of emotions on moral domain specificity (e.g., benevolence, justice, or purity;

Tapias et al., 2007). The present research substantially extends the ATF literature by testing whether elevation and outrage have domain specific effects on prosocial behaviors. These two emotions offer a particularly effective test of the ATF because despite both having positive connotations for prosociality they imply distinct domain specific effects (benevolence vs. justice, respectively). The current experiments showed that elevation and outrage increased domain-specific prosocial behaviors associated with their distinct moral appraisal themes, thus providing clear support for the ATF.

As well as providing insights into how emotions affect individual-level prosocial behaviors, the current research raises interesting new questions about how distinct emotions may impact upon society-level processes such as moralization. Moralization is the process by which moral judgments become embedded into societal value systems, often through emotions. Research on moralization shows some support for society-level domain specificity in the influence of emotions such as disgust on attitudes towards societal issues such as homosexuality (cf. Horberg et al., 2011). Therefore, it would be interesting to explore whether other emotions, in particular under-researched emotions such as elevation, can also instigate the moralization of societal phenomena. For example, it is plausible that, across a community, the presence of selfless acts may generate shared feelings of elevation that create new moral standards of benevolence (rather than of justice).

The current studies offer important insights for campaigns that aim to increase prosocial action. Firstly, the current research provides further empirical support for the effectiveness of elevation and outrage at increasing prosocial behaviors. Charitable campaigns typically draw on sympathy and guilt to instigate action, however sympathy runs the risk of instigating paternalistic helping (Nadler & Halabi, 2006; Thomas et al., 2009) while guilt runs the risk of instigating self-focused helping (Iyer, Leach, & Pedersen, 2004). Thus, elevation and outrage appear as powerful alternatives for motivating prosocial action.

Secondly, the ATF offers a theoretically sound as well as tangible and practical framework for practitioners to understand the effects of emotions on prosocial behaviors and utilize them accordingly (Horberg et al., 2011). In applying the ATF to elevation and outrage, the current research showed how each emotion should be used appropriately to increase distinctive prosocial behaviors. Put differently, different behavioral goals required different emotional states. Specifically, the present studies showed that moral elevation strongly motivates benevolent behaviors. Thus, when raising money or attracting volunteers, charities should show uncommon acts of kindness in their campaign content. This should instigate feelings of elevation, make salient the sociomoral concern of benevolence, and thus encourage the uptake of benevolent behaviors. Moreover, moral outrage strongly motivates justice behaviors. Thus, when attempting to increase third-party action or intervention in response to injustices or unfairnesses (e.g., through collective protest or petition signing) charities should show moral transgressions in their campaign content. This should instigate feelings of outrage, make salient the sociomoral concern of justice, and thus encourage the uptake of justice behaviors.

Limitations and Caveats

Across Experiments 1 and 2 ratings of elevation and outrage were either not particularly high or differed by only 2-points from the control video. Research shows that nature (the control stimulus) can inspire feelings of awe (Keltner & Haidt, 2003). However, it is unlikely that the video instigated any elevation. It is also highly doubtful that the control stimulus instigated feelings of outrage. Thus, it is likely that participants in the control condition felt as though they should report some sort of emotional response, rather than actually feeling any emotion. It is plausible that with even stronger elevating and outrageous stimuli, behavioral effects may be more pronounced. Nevertheless, the significant differences between the emotion-inducing videos and the control video on respective emotion ratings,

and the consistency of the overall empirical findings with the theoretical predictions provide confidence in our stimuli. Future research should examine effects of a greater range of elevation and outrage-inducing stimuli.

ANOVA results across the three experiments were in line with the theoretical predictions, but some of the correlational data merit further comment. Whereas both types of appraisal directly correlated with prosociality in Experiment 1 neither type of appraisal correlated directly with prosociality in Experiments 2 or 3. It is plausible that participants who dispositionally evaluate behavior with reference to moral standards (regardless of the particular situation) may also donate more to charity, but it is unclear why they might not also engage in justice-related actions. Future research should therefore investigate whether particular individual differences can explain these relationships.

In Experiment 2 feelings of elevation correlate significantly with willingness to engage with the support group (justice-relevant). Although this was not hypothesized, it does not contradict the primary hypothesis that the *predominant* influence over justice-relevant intention should be outrage. Specifically, in line with the domain-specificity hypothesis the relationship between outrage and justice-relevant outcomes ($r = .40$) is substantially larger than that between elevation and justice-relevant outcomes ($r = .20$, $Z = 1.85$, p (1-tailed) $= .032$).

Furthermore, the current research focused on applying the ATF to moral elevation and moral outrage to understand their effects on prosocial intentions and behaviors. However, future research should also examine how dispositional traits (such as empathy, perspective taking, or political ideology) are implicated in the link between moral emotions and domain specific prosocial behaviors.

Conclusion

The present research has examined, for the first time, whether and how elevation and outrage can produce prosocial responses via different appraisals. Understanding how these appraisals and moral emotions influence prosociality is essential for deciding whether and how to use them in important practical interventions such as charity campaigns, educational efforts, or social policy strategies. The evidence shows, for the first time, that elevation and outrage have distinctive prosocial effects, and suggests interesting new possibilities both for interventions and for future theory and research.

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Notes

[1]As appraisals were measured after emotions (due to a procedural flaw), we repeated our mediation analyses but reversed the order of the emotions and appraisals. Results showed that elevation and then positive appraisals did not mediate the effect of the elevation-inducing video on donations, $B = 1.28$, $SE = 1.16$, 95CI -.17/5.00. These results are in line with the theoretical models by which emotions are evoked by their relevant appraisals, and not the reverse (Frijda, Kuipers, & ter Schure, 1989).

Table 1

Experiment 1: Means, standard deviations, confidence intervals, and correlations among key variables

Variable	*Mean (SD)*	95% CI	2	3	4	5
1.Elevation[a,d]	3.98 (2.37)	[3.49, 4.47]	-.07	.56***	-.14	.32**
2.Outrage[a, d]	3.11 (2.08)	[2.68, 3.54]		.07	.56***	.13
3.Elevation appraisals[b]	3.02 (1.16)	[2.78, 3.26]			.09	.33**
4.Outrage appraisals[b]	2.99 (1.25)	[2.74, 3.25]				.23*
5.Donations[c]	29.71 (23.89)	[24.76, 34.65]				

Note. $N = 92$. CI = confidence interval.

[a] Elevation and outrage are scored on a 9-point scale (1= *not at all*, 9 = *very much*).

[b] Cognitive appraisals are scored on a 5-point scale (1 = *not at all*, 5 = *very much*).

[c] Prosocial behaviour was measured according to the amount of money (from £0-60) donated to charity.

[d] A t-test showed that the correlation between elevation and donations versus the correlation between outrage and donations did not differ significantly, $t(89) = -1.64$, $p = .104$.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 2

Experiment 2: Means, standard deviations, confidence intervals, and correlations among key variables

Variable	*Mean (SD)*	95% CI	2	3	4	5	6	7
1.Elevation	4.45 (1.69)	[4.19, 4.71]	-.09	.67***	-.26**	.20**	.15	-.01
2.Outrage	3.63 (2.14)	[3.30, 3.96]		-.01	.68***	.40***	.42***	.08
3. Elevation appraisals	3.49 (1.15)	[3.31, 3.67]			-.06	.05	.10	.07
4. Outrage appraisals	3.08 (1.35)	[2.87, 3.29]				.05	.10	.07
5. Support	3.27 (.08)	[3.11, 3.44]					.72***	-.06
6. Challenge	3.20 (.08)	[3.04, 3.36]						.11
7. Avoid	1.75 (.08)	[1.60, 1.91]						

Note. $N = 162$. CI = confidence interval. The emotions are scored on a 7-point scale (1= *not at all*, 7 = *very much*). The appraisals and political action intentions are scored on a 5-point scale (1= *not at all*, 5 = *very much*).

[a] T-tests showed that the correlations between outrage and support (t (161) = -5.44, $p < .0001$) and outrage and challenge (t (161) = -5.52, $p < .0001$) were significantly different to the correlations between elevation and support and elevation and challenge, respectively.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 3

Experiment 3: Means, standard deviations, confidence intervals, and correlations among key variables

Variable	*Mean (SD)*	95% CI	2	3	4	5	6
1.Elevation[a]	4.45 (1.69)	[4.19, 4.71]	-.23*	.56***	-.*33***	-.10	-.01
2.Outrage[a]	3.63 (2.14)	[3.30, 3.96]		-.09	.64***	.14	.06
3. Elevation appraisals	3.49 (1.15)	[3.31, 3.67]			-.19†	-.07	-.01
4. Outrage appraisals	3.08 (1.35)	[2.87, 3.29]				.02	.13
5. Compensation	3.27 (.08)	[3.11, 3.44]					.13
6. Punishment	3.20 (.08)	[3.04, 3.36]					

Note. $N = 78$. CI = confidence interval. The emotions are scored on a 7-point scale (1= *not at all*, 7 = *very much*). The appraisals are scored on a 5-point scale (1= *not at all*, 5 = *very much*). Compensation and punishment ranges from zero to 16.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

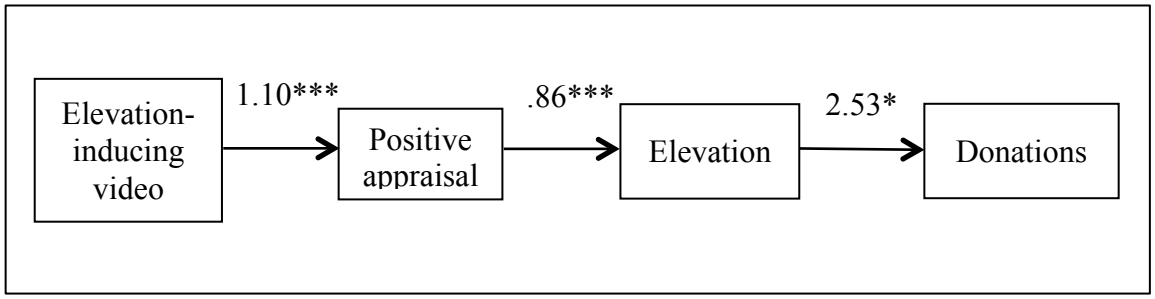

Figure 1. Study 1: Unstandardized *B* coefficients for sequential mediation analyses using Process macro (Hayes, 2013).

Note: *p = .05. **p < .01. ***p < .001.

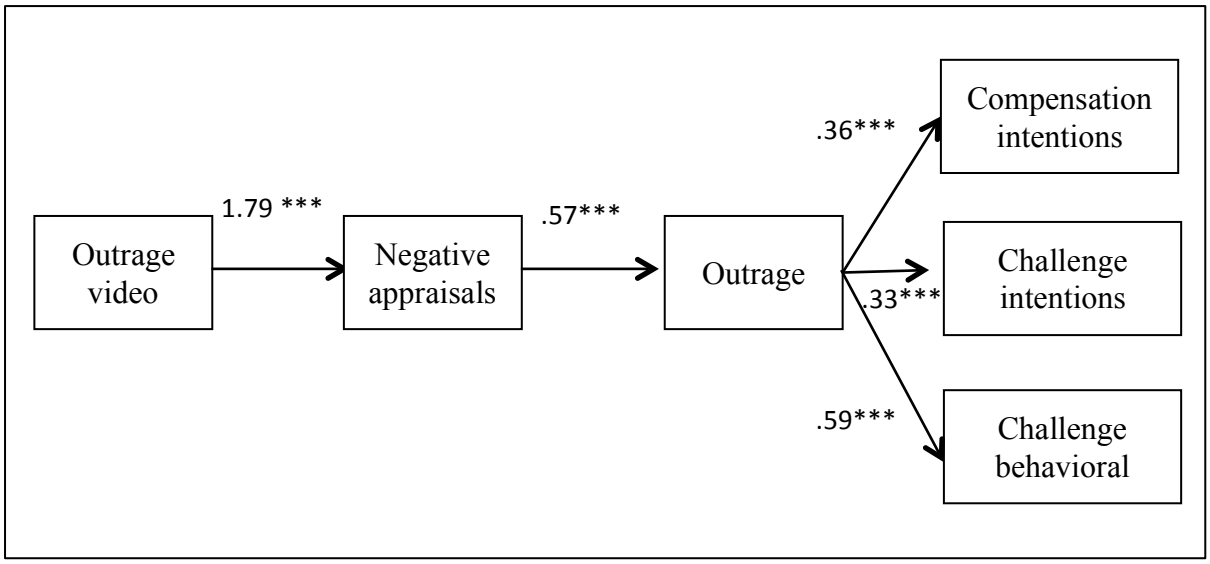

Figure 2. Study 2: Unstandardized *B* coefficients for sequential mediation analysis using Process macro (Hayes, 2013).

Note: ***$p < .001$.